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*Pediatrics 1999;103;1007-1013

DOI: 10.1542/peds.103.5.1007

This information is current as of August 3, 2005

The online version of this article, along with updated information and services, is located on the World Wide Web at: http://www.pediatrics.org/cgi/content/full/103/5/1007

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Mothers With Histories of Domestic Violence in a Pediatric Emergency Department

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ABSTRACT. Objective. To determine the prevalence of domestic violence against mothers in a pediatric emergency department and the relationship of their children to the abusers.

Design. Cross-sectional survey of a convenience sample of mothers seeking treatment for their children.

Setting. An urban pediatric emergency department. *Participants.* A total of 157 mothers with children <3 years of age. Women were excluded if older children or partners were present.

Results. A total of 52% of women reported histories of adult physical abuse, 21% reported adult sexual abuse, and 28% reported childhood sexual abuse. A total of 10% of women were in abusive relationships in the past year. Victims of adult physical abuse were more likely to report histories of adult sexual abuse (relative risk [RR]: 4.93) or childhood sexual abuse (RR: 3.13). Intimate partners perpetrated 67% of physical abuse and 55% of sexual abuse. Relatives perpetrated 66% of childhood sexual abuse. Women who revealed histories of childhood sexual abuse were more likely to report adult sexual abuse (RR: 4.93). A total of 40% of the perpetrators of adult physical abuse, 73% of the perpetrators of past year physical abuse, and 10% of the perpetrators of adult sexual abuse had regular contact with their victims' children.

Health care providers screened only 21% of the women for past violence. Victims of domestic violence were no more likely to have been screened than those without histories of physical or sexual abuse.

Conclusions. Mothers of young patients in a pediatric emergency department are often victims of domestic violence. Perpetrators are often close relatives and thus place the victims' children at risk for abuse and for the psychological trauma of witnessing violence. Given the prevalence of domestic violence, families may benefit from routine violence screening and interventions in pediatric emergency departments. Pediatrics 1999;103:1007-1013; domestic violence, family violence, emergency department screening.

ABBREVIATION. RR, relative risk.

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This study was presented previously at the Ambulatory Pediatric Association Annual Meeting, Washington DC, May 6-10, 1996.

Received for Jul 10, 1998 publication; accepted Nov 12, 1998.

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ecently, the medical community has recognized that domestic violence is an important health concern for families. Physical and/or sexual abuse against women by intimate partners is one of the most powerful predictors of physician visits and outpatient costs for women.^{1,2} A total of ~2 to 4 million women are abused physically each year, and domestic violence may occur in as many as 1 out of every 4 households.3 Young women in their childbearing years are at highest risk for domestic violence, and children who live in violent homes have a significantly increased risk of also being abused.4-7 In addition, the long-term deleterious consequences of witnessing violence may impact the health and emotional well-being of children who witness violence at home and may affect negatively their behaviors and relationships as they mature to adults.8-14 Studies of troubled young men have revealed that boys who witness domestic violence against their mother are at an increased risk of perpetuating aggressive behaviors later in their own lives. 15,16 Furthermore, girls who witness domestic violence are more vulnerable to victimization from domestic violence later in their own relationships. 17-19

Adult emergency departments have been established as important sites for identifying female victims of domestic violence. Nevertheless, little is known about the prevalence of physical or sexual abuse against women who bring their children to pediatric emergency departments for acute care. This important information about mothers' experiences may help identify children at risk for the medical and psychological morbidity associated with domestic violence. A number of studies have demonstrated the coexistence of domestic violence and child abuse.^{6,7,10,11,20} Often, however, recognition of family violence occurs after child abuse has been identified. Gathering information about family violence as one component of the routine pediatric emergency medical evaluation may help providers identify children at risk for child abuse, medical neglect, and the effects of witnessing violence that may offer assistance to the families. Abused women and their children who are identified in pediatric settings may benefit from the professional services and referrals offered by professionals who acknowledge the importance of violence as a major health concern for mothers and their children.

Objectives

The purposes of our study were to describe 1) the prevalence of physical and sexual abuse against mothers seeking treatment for their young children in the pediatric emergency department, 2) the relationship of the perpetrators of abuse to the mothers and their children, 3) the amount of contact the perpetrators of abuse had with the victims' children, and 4) some of the victims' health risks and their recollections of previous screening for domestic violence by health care providers.

METHODS

Study Design

A cross-sectional survey with a closed question format of a convenience sample of mothers seeking treatment for their young children in a pediatric emergency department.

Setting

The survey was conducted in an urban, tertiary care, pediatric emergency department with ${\sim}40\,000$ visits per year. The hospital is located in a mixed class, multicultural, New England city of 150 000 residents, and serves a population base of ${\sim}1$ million.

Study Population

Women accompanying patients who were ≤3 years of age to the pediatric emergency department during the time when a research assistant was available were asked to participate in the survey. Mothers were interviewed while their ill or injured children were present in the treatment rooms. Only the mothers of infants and toddlers who were unlikely to understand the context of the discussions were asked to participate to minimize the discomfort women might feel when asked sensitive questions in the presence of their young children. Women were excluded if they did not speak English or Spanish, their children were critically ill, older children were present from whom they could not be separated during the interview, or they were accompanied by a spouse or partner into the treatment area. During the consent process women were told that the interview results would be confidential unless they revealed that their children were victims of physical or sexual abuse, in which case the treating physicians would be informed, and the appropriate social service agency would be contacted.

Sampling Method

Female student volunteers administered anonymous, confidential, structured questionnaires. All volunteers received 8 hours of training in domestic and sexual violence by staff from the Rhode Island Coalition Against Domestic Violence and the Rhode Island Rape Crisis Center. Surveys were administered on intermittent shifts, 7 days of the week, 24 hours of the day. Women who revealed histories of physical or sexual violence were offered the immediate intervention services of the emergency department social worker. All participants were given the referral numbers to local domestic violence and rape crisis hotlines, police, domestic violence shelters, and the police restraining order office.

Survey Instrument

The survey consisted of demographic information questions, multiple response questions about the participant's history of domestic violence, and a narrative comment section. The questions were designed in consultation with members of the Rhode Island Coalition Against Domestic Violence, Rhode Island Rape Crisis Center, and hospital social work and nursing personnel, and by reviewing relevant literature and legal definitions. The questions concerning the women's history of domestic violence were modified from the Abuse Assessment Screen developed by McFarlane et al.²¹ In accordance with the Abuse Assessment Screen, physical abuse was defined as an affirmative response to the question, "As an adult have you ever been hit slapped, kicked, punched, pushed, or otherwise hurt by someone?" Sexual abuse was defined as an affirmative response to the question, "As an

adult have you ever had unwanted or forced sexual contact with another adult?" Childhood sexual abuse was defined as an affirmative response to the question, "Have you ever been touched in a way as a child that now as an adult you know was a sexual touch?" Emotional abuse and threats of violence were not included in the context of this study. The survey was anonymous and administered in a confidential setting by the trained volunteers and required ${\sim}15$ minutes to complete.

Analysis and Statistical Methods

All analyses were conducted using the Epi Info 6 epidemiologic statistical package (Centers for Disease Control and Prevention, Atlanta, GA). Frequency distributions including standard deviations were used to describe continuous variables. Dichotomous variables were analyzed by relative risk (RR) to determine the strength of association using 95% CI with accompanying P values derived from the χ^2 test or Fisher's exact test if >20% of the expected frequencies were <5.

RESULTS

A total of 157 women completed the survey. An additional 15% of mothers in the emergency department were eligible for the study but were disqualified because another child or male partner accompanied them into the treatment area or because there was a language barrier. All the eligible women who were approached agreed to participate. A total of 10 interviews were interrupted before completion because of necessary health care interventions for the patients or because the patients were unable to complete the questions because of emotional distress caused by recalling the abusive experiences. The participants' mean age was 27 years (SD: 6.7 years), 60% identified themselves as white, 15% as African-American, 17% as Latino, 6% as Portuguese, and 2% as "other." A total of 62% of the women had graduated from high school; 18% of those women also had a college degree. A total of 73% of the women earned <25 000 dollars per year. The mean age at first pregnancy was 21.7 years (SD: 5.4), and the women had an average of 3.5 children (SD: 5.7) (Table 1).

Histories of physical abuse during their adult life were revealed by 52% of the women, and 10% of the women were involved in relationships in which physical abuse had occurred in the past year. A total of 21% of the women disclosed adult sexual abuse, and 28% of the women disclosed childhood sexual abuse. A total of 11% of the participants revealed histories of adult physical and sexual abuse as well as childhood sexual abuse.

When women recounted physical abuse from their past, single perpetrators were responsible 64% of the time (mean: 1.5; SD: 1.0). Usually, assailants were intimate partners (67%), who were often boyfriends (43%) or, less typically, spouses (19%) or "friends" (5%). Family members other than spouses were responsible for 32% of physical abuse, whereas "strangers" were indicated 1% of the time (Table 2). Physical abuse began at an average victim age of 15 years (SD: 6.7 years) and usually started in dating relationships. A total of 50% of the victims reported 1 to 3 physically abusive episodes in the past, 38% of the victims explained that they were abused on an intermittent but routine basis, and 12% of the victims reported histories of daily physical abuse during their relationship with the abuser. Women who re-

TABLE 1. Demographics

	Adult Physical Abuse	Adult Sexual Abuse	Childhood Sexual Abuse	All Surveyed
Average age (y)	27 (SD = 7)	27 (SD = 6)	28 (SD = 9)	27 (SD = 7)
Education	37% < high school	43% < high school	40% high school	38% < high school
	47% high school degree	39% high school degree	45% high school degree	44% high school degree
	16% college degree	18% college degree	15% college degree	18% college degree
Annual income (in \$1000)	0-15 = 56%	0-15 = 61%	0-15 = 68%	0-15 = 52%
	15-25 = 22%	15-25 = 21%	15–25 = 19%	15-25 = 21%
	25–35 = 22%	25–35 = 3%	25–35 = 5%	35-45 = 21%
		45+ = 15%	45+ = 8%	45+=6%
Average no. of children	3	3	4	4
Race	African-American = 17%	African-American = 21%	African-American = 16%	African-American = 15%
	White $= 59\%$	White $= 49\%$	White $= 57\%$	White $= 60\%$
	Latino = 14%	Latino = 24%	Latino = 23%	Latino = 17%
	Portugese = 6%	Portugese = 3%	Portugese = 2%	Portugese = 6%
	Other = 4%	Other = 3%	Other = 2%	Other = 2%
Mothers' mean age at birth of first child (y)	21 (SD = 5)	21 (SD = 5)	20 (SD = 5)	22 (SD = 5)

TABLE 2. Abuse Information

	Adult Physical Abuse	Physical Abuse in Past Year	Adult Sexual Abuse	Childhood Sexual Abuse
Number (%)	N = 81 (52%)	N = 15 (10%)	N = 33 (21%)	N = 43 (28%)
Victims' mean age (y)	27	27	28	26
Number of abusers (%)	1 = 64%	1 = 80%	1 = 69%	1 = 86%
` '	2 = 28%	2 = 20%	2 = 17%	2 = 10%
	>3 = 8%		>3 = 14%	>3 = 4%
Identity of abuser (%)	Spouse = 19%	Spouse = 20%	Spouse = 10%	Friend = 21%
	Boyfriend = 43%	Boyfriend = 73%	Boyfriend = 24%	Sibling $= 5\%$
	Friend = 5%	Friend = 7%	Friend = 21%	Parent = 15%
	Sibling = 11%		Sibling $= 3\%$	Other family $= 46\%$
	Parent = 19%		Parent = 7%	Neighbors = 11%
	Stranger = 1%		Other relative $= 14\%$	Stranger = 2%
	Other relative $= 2\%$		Stranger = 7%	0
			Other = 14%	
Mean age when abuse started (y)	15	22	16	9
Number of abusive	1 = 28%	1 = 42%	1 = 52%	1 = 43%
episodes (%)	2-3 = 22%	2-3 = 17%	2-3 = 7%	2-3 = 23%
	Few times/ $y = 9\%$	1-3/mo = 41%	Few/y = 3%	Few times/ $y = 8\%$
	1-3/mo = 29%		1-3/mo = 24%	1-3/mo = 20%
	Daily = 12%		Daily = 14%	Daily = 6%
Duration of abuse in the relationship (%)	One episode = 28%	One episode = 42%	One episode = 52%	One episode = 43%
	<1 y = 17%	<1 y = 58%	<1 y = 14%	<1 y = 28%
	1-3 y = 23%	-	1-3 y = 10%	1-3 y = 12%
	>3 y = 32%		>3 y = 17%	>3 y = 17%
	-		Ongoing = 7%	•

ported that physical abuse had occurred during the past year were on average 27 years of age (SD: 9.7 years). The violent episodes always were perpetrated by intimate partners, with a mean of 2.3 violent acts (SD: 1.4) in the previous year (Table 2).

Of the women surveyed, 21% reported histories of adult sexual abuse. Of those women, 69% indicated a single abuser. Intimate partners were the abusers of 55% of the victims; 24% of those abusers were boyfriends, 21% were "friends," and 10% were spouses. Family members other than spouses were indicated as sexual abuse assailants by 24% of the victims, strangers by 7%, and "other assailants" by 14% (Table 2). Sexually abusive relationships began at an average victim age of 16 years (SD: 7.3). Of the victims, 52% reported a single sexually abusive encounter, and 14% reported daily abuse during their relationships with the perpetrators.

Of the participants, 28% disclosed histories of childhood sexual abuse, perpetrated by a single as-

sailant in 83% of the cases. The abusers were family members in 66% of the cases, "friends," or "neighbors" in 32% of the cases, and "strangers" in 2% of the cases (Table 2). Overall, 98% of the perpetrators of childhood sexual abuse were persons well known to their victims. The victims reported that childhood sexual abuse started at an average age of 8.6 years (SD: 3.4 years).

In an overall analysis, there were no significant differences in the demographic characteristics (age, race, or socioeconomic status) of women who reported histories of adult physical abuse, adult sexual abuse, or childhood sexual abuse, and those who did not report histories of abuse. The women who disclosed histories of adult physical abuse were more likely to report adult sexual abuse than those without histories of adult physical abuse (RR: 4.93; 95% CI: 3.07 to 7.93; P < .0001). However, most of the time the physical and sexual abuse occurred in different relationships. Women who reported childhood sex-

ual abuse also were significantly more likely to report adult physical abuse than those without histories of childhood sexual abuse (RR: 3.13; 95% CI: 1.13 < RR < 4.33; P = .015). In 40% of such cases, parents were indicated as both the adult physical abusers and childhood sexual abusers. In addition, the women who reported childhood sexual abuse were also more likely to disclose adult sexual abuse than women without histories of childhood sexual abuse (RR: 4.93; 95% CI: 3.07 < RR < 7.93; P < .001). In those circumstances, the victims never indicated the same persons as the perpetrators of both childhood and adult sexual abuse.

Mothers who revealed histories of adult physical abuse reported that 35% of their assailants were the fathers of some or all of their children, 1% of their assailants were stepfathers, 18% of their assailants were grandparents, 6% of their assailants were other family members, and 40% of their assailants were described as having "no current relation" with the victims' children (Table 3). Physically abused mothers also revealed that 40% of their abusers had regular contact with their children, and 19% of the contact was daily. When husbands were the physical abusers, they were the fathers of their victims' children in 60% of the cases and had contact with them in 40% of the cases, of which 85% was daily contact. When the mothers' boyfriends were the physical abusers, they were the fathers of their victims' children in 51% of the cases and had contact with the children in 37% of the cases, of which 38% was daily. Of the women who suffered physical abuse in the past year, 73% reported abuse by their children's fathers. In addition, 73% of these recent abusers had regular contact with their children, and 36% of this contact was daily (Table 3).

The perpetrators of adult sexual abuse were the fathers of their victims' children in 14% of the cases, 22% were other relatives, and 56% were described as having "no current relationship" to the children. The vast majority of perpetrators of sexual abuse (90%) had no contact with their victims' children, 7% had some contact, and 3% had daily contact. None of the perpetrators of childhood sexual abuse had any contact with their victims' children, although 44% were biological relatives.

There were no relationships between the age or types of medical complaints of the children and their mothers' history of physical or sexual abuse. Furthermore, mothers of injured children did not report a greater prevalence of physical or sexual abuse than mothers of children with medical illnesses. Most of the children (78%) accompanying the women to the emergency department on the day of the interview were evaluated for illness rather than for injury, regardless of the women's history of physical or sexual abuse.

To maintain the confidentiality of the study, we did not ask mothers specifically during the interviews whether their children were victims of physical or sexual assault, or whether they thought that their children were witnesses to domestic violence. However, in the narrative section of the survey, over half of the victims expressed concerns to the interviewers that their young children suffered emotional effects from witnessing violence at home.

The participants in the survey reported an average of one emergency department visit for their own treatments in the past year (SD: 1.8) and six physician office visits (SD: 7.5). There was no significant increase in emergency department or physician office visits by women with histories of physical or sexual abuse compared with those without this history. However, women with histories of abuse did report some significant health risks. The victims of sexual abuse were more likely than women with and without histories of physical abuse to report suicidal thoughts (RR: 18.33; 95% CI: 2.22 to 151.66; *P* < .001). In addition, physical abuse occurred during pregnancy in 15% of the women reporting physical abuse and increased to 36% of women who revealed physical abuse in the past year. Sexual abuse during pregnancy occurred in 17% of the adult sexual abuse victims and in 25% of the women who reported adult physical and sexual abuse. Despite the prevalence of physical and sexual abuse, 79% of the participants had never been screened by any health care provider for domestic violence. Furthermore, victims of physical or sexual violence were no more likely to have been screened than women without any history of abuse. Overall, 62% of the victims of physical abuse had talked to someone about the violence in their

TABLE 3. Victims' Health Risks

TABLE 5. VICINIS TIEBUIT KISKS				
	Mother With History of Adult Physical Abuse	Mother With History of Adult Physical Abuse in Past Year	Mother With History of Adult Sexual Abuse	Mother With History of Childhood Sexual Abuse
Pregnant when abused (%)	Yes = 15%	Yes = 36%	Yes = 17%	Yes = 2%
	No = 85%	No = 64%	No = 83%	No = 98%
Able to talk to someone about abuse (%)	Yes = 62%	Yes = 91%	Yes = 45%	Yes = 44%
	No = 38%	No = 9%	No = 55%	No = 56%
Suicidal thoughts in past year (%)	Yes = 5%	Yes = 0%	Yes = 15%	Yes = 12%
	No = 95%	No = 100%	No = 85%	No = 88%
Answer to question, "Do you feel safe at home?" (%)	Always = 92%	Always = 64%	Always = 85%	Always = 81%
	Sometimes = 8%	Sometimes = 36%	Sometimes = 15%	Sometimes = 19%
Mean no. of emergency department visits in past year	1.3 (SD = 2.2)	2.92 (SD = 2.8)	1.2 (SD = 1.1)	1.7 (SD = 2.8)
Mean no. of physician's office visits in past year	6.13 (SD = 7.5)	8.5 (SD = 14.9)	4.7 (SD = 5.7)	7.1 (SD = 10)
Ever asked about violence by a health care provider? (%)	Yes = 26%	Yes = 36%	Yes = 24%	Yes = 26%
	No = 74%	No = 64%	No = 76%	No = 74%

lives but were less likely to discuss their experiences with anyone if they were sexually abused (45%; RR: 2.03; 95% CI: 1.3 to 3.2; P = .01). Women who reported sexual abuse during childhood were also quantitatively less likely to discuss their experiences than victims of physical abuse, but the differences between the groups did not reach statistical significance (44%; P = .06).

DISCUSSION

Our study is the first to describe the prevalence of domestic violence in mothers of young patients in a pediatric emergency department. The results demonstrated that histories of physical and sexual abuse were prevalent in the women surveyed. More than half of the mothers who were interviewed were the victims of adult physical abuse; and therefore, many of their children were, directly or indirectly, victims of violence.

Previous studies of adult women patients have revealed a 40% to 60% lifetime prevalence of domestic violence and have revealed a 11% to 30% incidence of acute domestic violence.21-25 Women patients in primary care settings have also shown a 30% to 40% lifetime prevalence of domestic violence.^{26–27} Interestingly, in our study the prevalence of physical and sexual abuse paralleled results previously reported in adult emergency department surveys, although the participants were the mothers of young patients and not the patients themselves. This correlation may be explained partially by the demographics of the study group, most of whom were impoverished young mothers, a group that is at known risk for victimization from domestic violence. In our emergency department, the majority of mothers of young children fit a similar demographic profile, thus highlighting the need to heighten concern about domestic violence and its consequences in mothers and particularly young children in pediatric emergency departments.

The selection of an urban emergency department population, albeit a pediatric population, may help elucidate the prevalence of domestic violence in our study population also and may help underscore the importance of emergency departments as sites for identifying victims of domestic violence. Victims may select emergency departments preferentially for their child's medical care for many of the established reasons that they often choose them for their own medical treatments. Women's health studies have shown that domestic violence victims frequently equate emergency care to "anonymous" care, because emergency departments provide unscheduled evaluations and treatments 24 hours a day by health professionals who rarely have ongoing relationships with the patients.^{22,23,24,25} Besides, emergent examinations emphasize acute complaints with patients expected to return to their regular providers for followup. This seemingly obscure provision of health care in emergency departments may attract frightened victims including those only able to negotiate unscheduled care for themselves and their children because their abusers control or prevent them from accessing services. 25,28,29 An appreciation of the potential danger on discharge for victims and their children in emergency settings propelled us to limit our study population to mothers who were not accompanied by partners. This potentially biased our sample population, and thus our results in favor of women who were more willing to talk about abuses in their lives. Overall however, the acute care milieu and infrastructure of emergency departments, designed to facilitate emergent care, regrettably also may promote fragmented primary care and enable victims to avoid confronting the physical and emotional impact of the violence in their lives and in their children's lives.

In our study, many of the victims of domestic violence reported a history of physical and sexual abuse during their own childhood and as teenagers in dating relationships. These data support theories that suggest that women who are victimized during childhood are at greater risk for forming abusive relationships.^{4,10,11,17,18} We learned from our interviews that victimization from physical and sexual abuse prevailed during many participants' lives, often in more than one relationship. Frequently, abusive relationships continued in families, ostensibly because of the abuser's kinship to the victims and their children. We investigated this point by identifying the relationship and contact that victims' children had with their mothers' assailants. Quantifying that contact was used as a way to assess the physical presence of perpetrators in the children's lives, and thus, their potential opportunities for influencing behaviors and/or abuse. The results demonstrated that >50% of the perpetrators of physical violence were the biological fathers or grandparents of the victims' children, and most of the remaining perpetrators were the intimate partners of the mother. The physical abusers were not only important members of the children's families, but also had frequent, often daily, contact with the child. The results suggest that victims' children were exposed on a regular basis at home to adults who used violence as a means of solving problems and gaining control. Even when violent relationships between women victims and their assailants ended, many fathers and relatives continued to have contact with their children and grandchildren, and presumably, played influential roles in their lives.

Many victims expressed concern about the emotional and health impact on their children of witnessing violence at home. Yet, few women had ever discussed domestic violence with any health care provider. The participants in the study reported that they were questioned rarely about physical or sexual abuse in any health care setting. Their responses concurred with findings from outpatient health care settings demonstrating that physicians detect only ~5% of the cases of domestic violence, although victims report more frequent use of emergency and other health care services. 1,25,27-31 In general, most victims of domestic violence have revealed in victims' inquiries that they never volunteer histories of violence to health care providers unless questioned directly and in confidential and supportive settings.31-32

Superficially, in our small select group, there were no distinguishing pediatric medical complaints implying that there was violence in the children's families. However, the numerous disclosures of maternal abuse suggest that closer examination of the general health status of the children of victims of domestic violence is warranted in emergency settings. Detailed inquiries about family violence may unveil important pediatric medical correlates of abusive home environments. Presently, it is known that victims of domestic violence have an increased prevalence of somatic and psychological complaints and use health services more frequently than women without histories of domestic violence.27-31 In addition, women with histories of being abused as children also have an increased prevalence of physical symptoms and psychological problems.³³ Moreover, mothers of abused children are significantly more likely to be victims of domestic violence and are at increased risk of injury and illness.⁷ These clinical observations have helped physicians who are caring for adult patients to begin to understand many of the medical correlates of abuse in women and have given medical credence to discussions about family violence between physicians and patients. For pediatric practitioners and investigators, the task is to delineate the health status and medical consequences of children who witness family violence so that vulnerable children are recognized more clearly, early family interventions are begun, and intergenerational patterns of violence are interrupted.

Some of the health effects on children who witness domestic violence are known already. Children who live in violent homes are at increased risk for behavioral and emotional problems, for violence directed at them, and for other forms of child abuse. 6,9,13,14,17-20 In addition, they are at risk for developing violent relationships as adults.¹¹ However, there is a paucity of research that investigates the relationship between witnessing family violence during childhood and the risk for medical disease and unintentional injury. In addition, little is known about whether children who witness domestic violence receive less consistent health care because of the chaotic atmosphere of violent homes. A thorough health assessment of a small sample of abused women and their children in shelters found overall patterns of illness and injury to be similar to those in a general sample of children of the same age. However, the children in the shelter had higher school absenteeism rates for health problems, higher proportions of ocular and hearing problems, and significantly increased emotional and behavior problems.8 Additional studies of larger populations will be needed to establish a causal link between family violence and pediatric morbidity. Detailed assessments of the medical complaints and family dynamics of children seeking care in outpatient settings, particularly in emergency departments, may begin to help identify the health risks and needs of children who live in abusive homes.

CONCLUSIONS

In summary, our study demonstrated that in a group of mothers interviewed in our pediatric emer-

gency department, domestic violence was prevalent and that the perpetrators often had significant contact with the victims' young children. Despite their risk for harm, the victims' children had no obvious distinguishing complaints in the emergency department suggesting that there was violence in their families. Given the lack of identifying markers of violence during acute care evaluations and the prevalence of domestic violence reported by mothers of young patients, routine screening of mothers by emergency providers may prove beneficial to the health and well-being of pediatric patients. A few extra direct questions at every patient encounter might contribute to interrupting a cycle of violence for children who are at significant risk for physical and emotional harm and for becoming perpetrators or victims of violence later in life. Performing routine screening of mothers and providing services to families in danger will help physicians and nurses learn to identify victims. Additionally, incorporating violence assessments into the medical interview will convey the message that domestic violence is an important health concern for all patients and their families.

However, the true prevalence of family violence will be elucidated only when women are questioned routinely and directly in a variety of confidential settings. In addition to screening, providing referrals and advocacy services in pediatric emergency departments and other pediatric health care settings may empower victims of abuse and provide them access to immediate and valuable services for their families. However, the efficacy of domestic violence interventions and services for victims and their families is an area in need of evaluation. No matter how simple, routine domestic violence screening will only have power if its effectiveness can be validated by outcome studies of victims who are screened and who access services.

ACKNOWLEDGMENTS

This project was supported by the Rhode Island Rape Crisis Center, the Rhode Island Coalition Against Domestic Violence, the Echoing Green Foundation, and the Rhode Island Department of Health Violence Against Women Prevention Project.

The research team acknowledges the conceptual input of the Hospital Advocacy Project for Victims of Violence, especially Linda St. Angelo, RN, MSN; Mitchell Robbins, MSW; and Mary Donnally, MSW; as well as the many student volunteers.

REFERENCES

- Koss MP, Woodruff W, Koss, PG. Deleterious effects of criminal victimization on women's health and medical utilization. Arch Intern Med. 1991:151:342–347
- 2. Bergman A, Brismar B. A 5-year follow-up study of 117 battered women. *Am J Public Health*. 1991;81:1486–1489
- 3. Novella AC, Rosenberg M, Saltzman L, Shosky J. From the Surgeon General Report, US Public Health Service. *JAMA*. 1992;267:3132
- Stark E, Flitcraft AH. Women and children at risk: a feminist perspective on child abuse. Int J Health Serv. 1988;18:97–118
- Merrill L, Herrig L, Milnes S. Childhood parenting experiences, intimate partner conflict resolution and adult risk for childhood physical abuse. Child Abuse Negl. 1996;20:1049–1065
- Ross SM. Risk of physical abuse to children of spouse abusing parents. Child Abuse Negl. 1996;20:589–598
- McGibben L, DeVoe E, Newberger EH. Victimization of mothers of abused children: a controlled study. *Pediatrics*. 1989;84:531–535
- 8. Kerouac S, Taggart ME, Lescop J, Fortin MF. Dimensions of health in

- violent families. Health Care Women Int. 1986;7:413-426
- Wolfe DA, Korsch B. Witnessing domestic violence during childhood and adolescence, implication for pediatric practice. *Pediatrics*. 1994;94: 594–599
- Straus M, Gelles R. Physical Violence in American Families. New Brunswick, CT: Transaction Publisher; 1990
- Jaffe P, Wolfe D, Wilson SK, Zak L. Family violence and child adjustment: a comparative analysis of girls and boys behavioral symptoms. Am J Psychiatry. 1986;143:74–77
- Kolko DJ, Kazdin AE, Day BT. Children's perspective in the assessment of family violence: psychometric characteristics and comparison to parent reports. Child Maltreatment. 1996;1:156–167
- 13. Groves BM, Zuckerman B, Marans S, et al. Silent victims, children who witness violence. *JAMA*. 1993;269:262–263
- Suh EK, Abel EM. The impact of spousal violence on the children of the abused. I Independent Soc Work. 1990;4:27–34
- Fitch FJ, Papantonio H. Men who batter: some pertinent characteristics. *J Nerv Ment Dis.* 1983;173:190–192
- Zingraff MT, Leiter J, Myers KA, Johnsen MC. Child maltreatment and youthful problem behavior. Criminology. 1993;31:173–202
- Cappell C, Heiner RN. The intergenerational transmission of family aggression. J Fam Violence. 1990;52:135–152
- 18. Widom C. The cycle of violence. Science. 1989;244:160-165
- Maxfield M, Widom C. The cycle of violence, revisited 6 years later. *Arch Pediatr Adolesc Med.* 1996;150:390–395
- McLain PW. Child Abuse and Neglect Deaths. Atlanta, GA: Centers for Disease Control and Prevention; 1995
- MacFarlane J, Parker B, Soeken K, Bullock L. Assessing for abuse during pregnancy: severity and frequency of injuries and associated entry into prenatal care. JAMA. 1992;84:867–871

- Randall T. Domestic violence intervention call for treating more than injuries. *IAMA*. 1990;264:939–940
- 23. McLeer S, Anwar R. A study of battered women presenting in an emergency department. Am J Public Health.1989;79:65–66
- Abbott J, Johnson R, Koziol-McLain J, et al. Domestic violence against women: incidence and prevalence in an emergency department population. *JAMA*. 1995;273:1763–1767
- Goldberg WG, Tomlanovich, MC. Domestic violence victims in the emergency department, new findings. JAMA. 1984;251:8259–8264
- McCauley, J, Kern, DE, Kolodner K, et al. The battering syndrome, prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Ann Intern Med.* 1995;123:737–746
- Gin NE, Rucker L, Frayne S, et al. Prevalence of domestic violence among patients in three ambulatory care internal medicine clinics. J Gen Intern Med. 1991;6:317–320
- 28. Appleton W. The battered women syndrome. *Ann Emerg Med.* 1980;9: 84–91
- Mcleer SV, Anwar RAH, Herman S, Maquiling K. Education is not enough: a systems failure in protecting battered women. *Ann Emerg Med.* 1989:651–653
- Sugg NK, Inui T. Primary care physician's response to domestic violence, opening Pandora's box. JAMA. 1992;267:315–60
- 31. Hamilton B, Coates J. Perceived helplessness and use of professional services by abused women. *J Fam Violence*. 1993;8
- Friedman LS, Samet JH, Roberts MS, et al. Inquiry about victimization experiences: a survey about patient preferences and physician practices. *Arch Intern Med.* 1992;152:1186–1190
- McCauley J, Kern DE, Kolodner K, et al. Clinical characteristics of women with a history of child abuse, unhealed wounds. JAMA. 1997; 277:1362–1368

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A recent meta-analysis estimated that in the United States 67% of hospitalized patients experience serious adverse drug reactions and that more than 100 000 Americans die annually from adverse drug events. Estimates suggest that in American hospitals, preventable adverse drug events cost nearly \$6000 each, meaning that a large teaching hospital spends more than \$5 million dollars each year just from adverse drug events.

Emanuel E. The ethical paradox of modern health care. Lancet. 1998;352:494-496

Submitted by Student

Mothers With Histories of Domestic Violence in a Pediatric Emergency Department

Susan J. Duffy, Meghan E. McGrath, Bruce M. Becker and James G Linakis *Pediatrics* 1999;103;1007-1013 DOI: 10.1542/peds.103.5.1007

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